REMARKS

The enclosed is responsive to the Final Office Action mailed on October 21, 2010. At the time the Examiner mailed the Office Action claims 1, 2, 14-21 and 23 were pending. By way of the present response Applicant has amended claim 1, 11 and 23, no claims have been canceled, and no new claims have been added. As such, claims 1, 2, 14-21 and 23 are now pending. Applicant respectfully requests reconsideration of the present application and the allowance of all claims now presented.

Claim Rejections - 35 U.S.C. § 103

Claims 1-2, 9-14, 16-19, and 23

The Examiner has rejected claims 1-2, 9-14, 16-19, and 23 under 35 U.S.C. § 103(a) as being unpatentable over *Gorczyca et al.* (U.S. Publication No. 2002/0094686 A1) in view of *Boggs* (U.S. Patent No. 6,087,191) and *Lynch et al.* (U.S. Patent No. 4,656,730). It is respectfully submitted that the combination of references does not disclose or suggest and and every feature of amended independent claim 1.

By way of the present response independent claim 1 has been amended to require, *inter alia*, "treating the roughened surface with a strong acid for 1 to 2 minutes". As described in page 1, lines 19-22 bead blasting can create a surface which is promotes adhesion of a new layer of a coating material. It has been observed that bead blasting also creates a surface that contains small particles which can adversely affect the coating which is applied to the surface. As described in page 5, lines 17-27 of the description, the roughened surface may be chemically etched to remove both embedded impurities and to remove loose fragments of the substrate material caused by roughening of the surface. Thus, Applicant teaches and claims in amended independent claim 1 to treat the roughened surface with a strong acid for 1 to 2 minutes. Support for the claimed time period of 1 to 2 minutes can be found in at least Example 1, page 8, line 8.

Gorczyca et al. discloses a process of mechanically roughening a quartz article surface to create micro cracks, followed by chemically etching the micro cracks in the quartz surface in order to open up or round out the micro cracks, leaving the quartz surface with trenches that replace the micro cracks. The shape of the trenches is intended to prevent further propagation into the quartz bulk when surface stress is applied to the quartz article during extended use in an LPCVD chamber. Of particular importance, is that *Gorczyca et al.* advocates etching the substrate for a period between about 0.1 hours (6 minutes) to 5 hours. See paragraph [0028]. More specifically, *Gorczyca et al.* discloses in paragraph [0022] etching the substrate for 30 minutes in order to remove about 3 microns of the quartz substrate and form trenches approximately 6 microns wide. Therefore, it is respectfully submitted that *Gorczyca et al.* does not disclose or suggest "treating the roughened surface with a strong acid for 1 to 2 minutes" as is taught and claimed by Applicant in amended independent claim 1.

Boggs discloses a method for repairing scratches, divots, pinholes, etc. formed in a substrate during a polishing operation. *Boggs* provides list of materials, including silicon oxide and zirconium oxide, as being dissolvable in a hydrothermal environment so that they can be deposited into the scratches, divots, pinholes, etc. as a fill material in order to form a smooth, defect-free surface. *Lynch et al.* discloses the formation of a trench isolation 80 which serves to prevent or reduce lateral diffusion of dopants where not desired. 80 is filled with a fill material 100 which preferably has a thermal expansion which is not substantially different than that of the substrate 10. It is respectfully submitted that *Boggs* and *Lynch et al.* do not remedy the deficiencies of *Gorczyca et al.* discussed above.

Therefore, Applicant respectfully submits that the invention claimed in independent claim 1 is not obviated by the disclosures of *Gorczyca et al.* in view of *Boggs* and *Lynch et al.* Claims 2, 9-14, 16-19, and 23 are directly or indirectly dependent upon independent claim 1 and are patentable for at least the same reasons. Accordingly, Applicant respectfully requests the withdrawal of the rejections of claims 1-2, 9-14, 16-19, and 23 under 35 U.S.C. § 103(a).

Claims 4 and 15

The Examiner has rejected claims 4 and 15 under 35 U.S.C. § 103(a) as being unpatentable over *Gorczyca et al.*, *Lynch et al.* and *Boggs* as applied to claim 1, in view of *Choi* (U.S. Patent No. 6,833,279 B2).

The Examiner relies upon *Choi* as disclosing an alumina or yttrium oxide layer. It is respectfully submitted that *Choi* does not remedy the deficiencies of *Gorczyca et al.* in view of *Boggs* and *Lynch et al.* discussed above. Therefore, Applicant respectfully submits that the invention claimed in claims 4 and 15 is not obviated by the disclosures of *Gorczyca et al., Lynch et al.* and *Boggs* in view of *Choi*, and Applicant respectfully requests the withdrawal of the rejections of the claims under 35 U.S.C. § 103(a).

Claims 5-8 and 20-21

The Examiner has rejected claims 5-8 and 20-21 under 35 U.S.C. § 103(a) as being unpatentable over *Gorczyca et al., Lynch et al.* and *Boggs* as applied to claim 1, and further in view of *Kowalsky et al.* (U.S. Patent No. 6,861,101 B1) and *Choi.*

It is Applicant's understanding that *Kowalsky et al.* discloses a plasma spray method. Applicant respectfully submits that *Kowalsky et al.* and *Choi* do not remedy the deficiencies of *Gorczyca et al.* in view of *Lynch et al.* and *Boggs* as discussed above. Therefore, Applicant respectfully submits that the invention claimed in claims 5-8 and 20-21 is not obviated by the disclosures of *Gorczyca et al., Lynch et al.* and *Boggs* in view of *Kowalsky et al.* and *Choi*, and Applicant respectfully requests the withdrawal of the rejections of the claims under 35 U.S.C. § 103(a).

Pursuant to 37 C.F.R. § 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. §§ 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: January 14, 2011

/Jacob Aikin/
Jacob T. Aikin
Reg. No. 62,787

1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300